

FIG. 1A

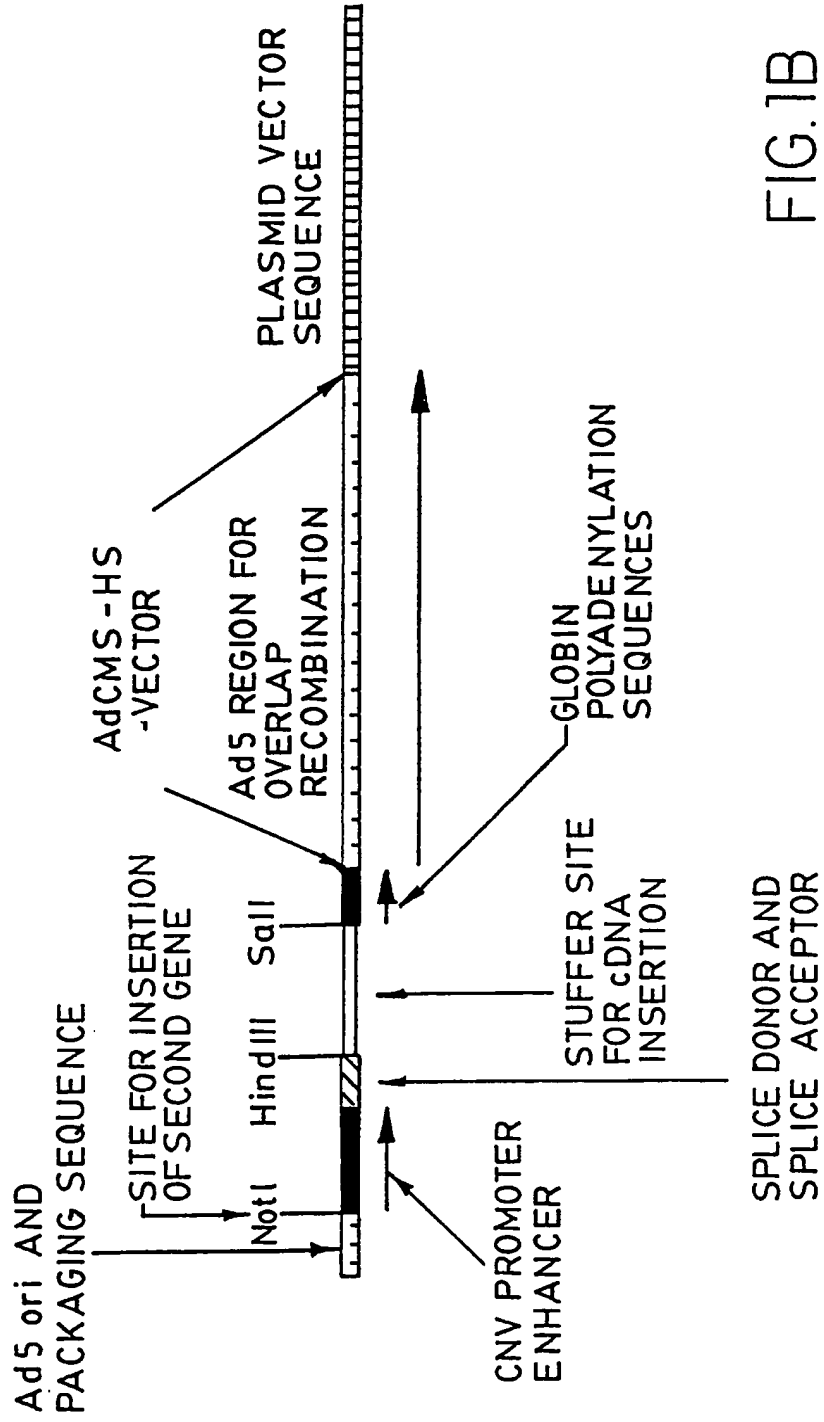
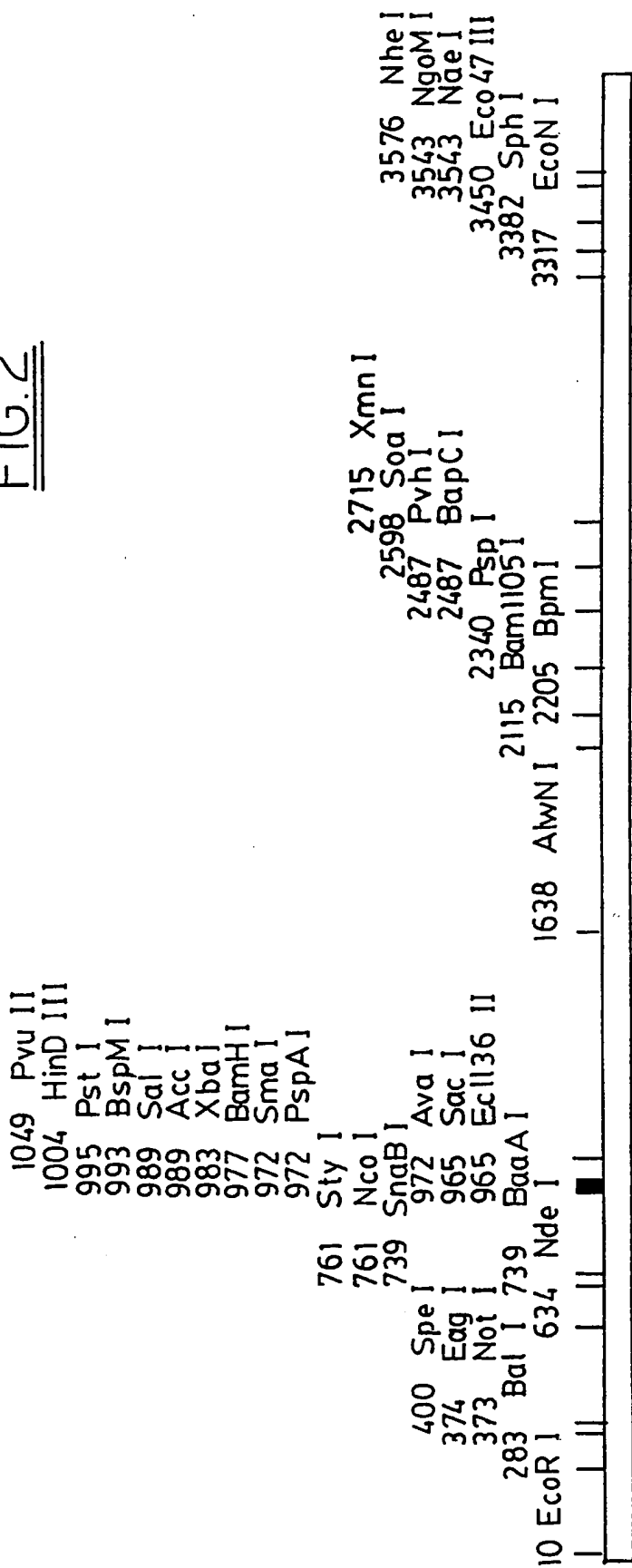


FIG.1B



FIG. 2



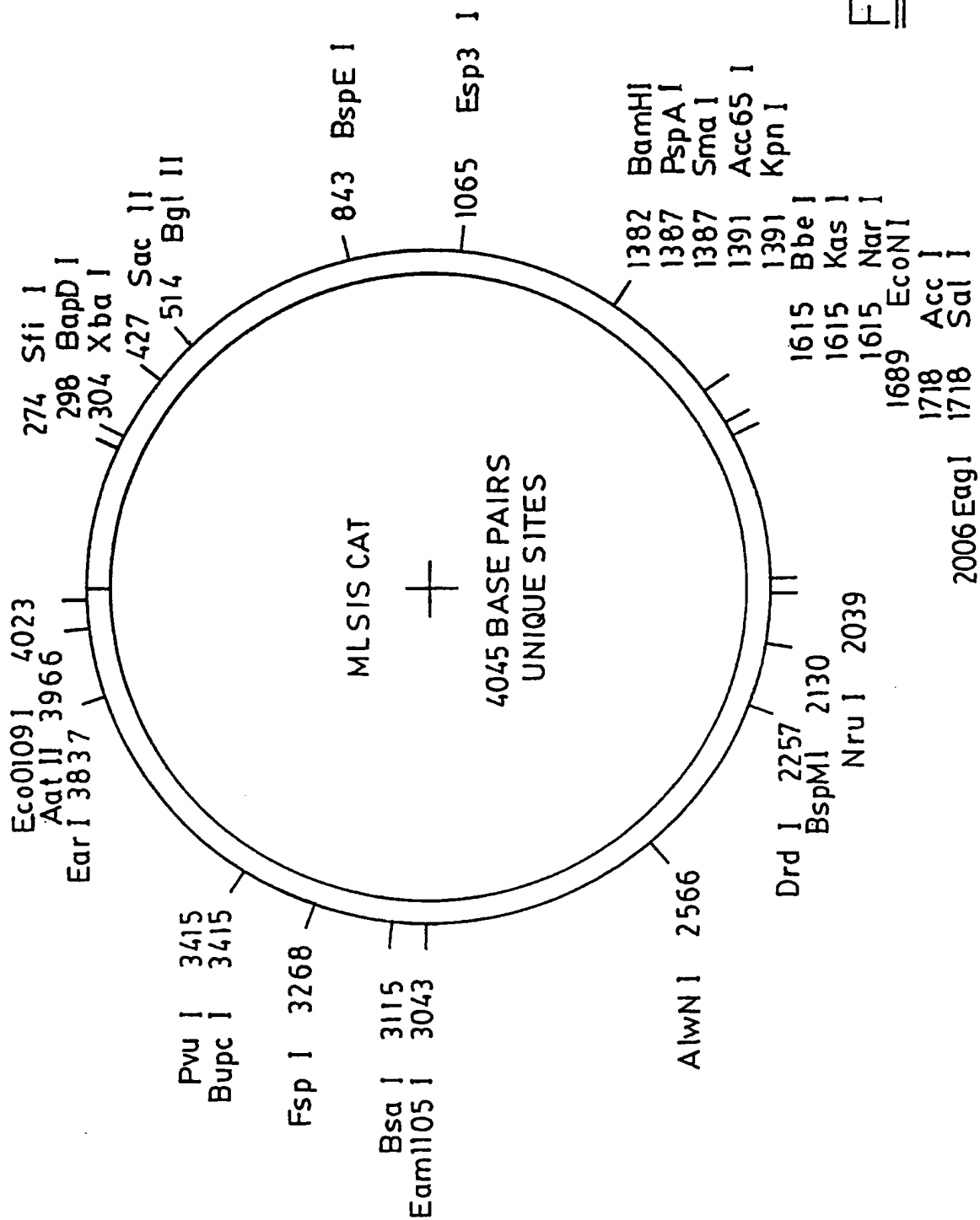


FIG. 3

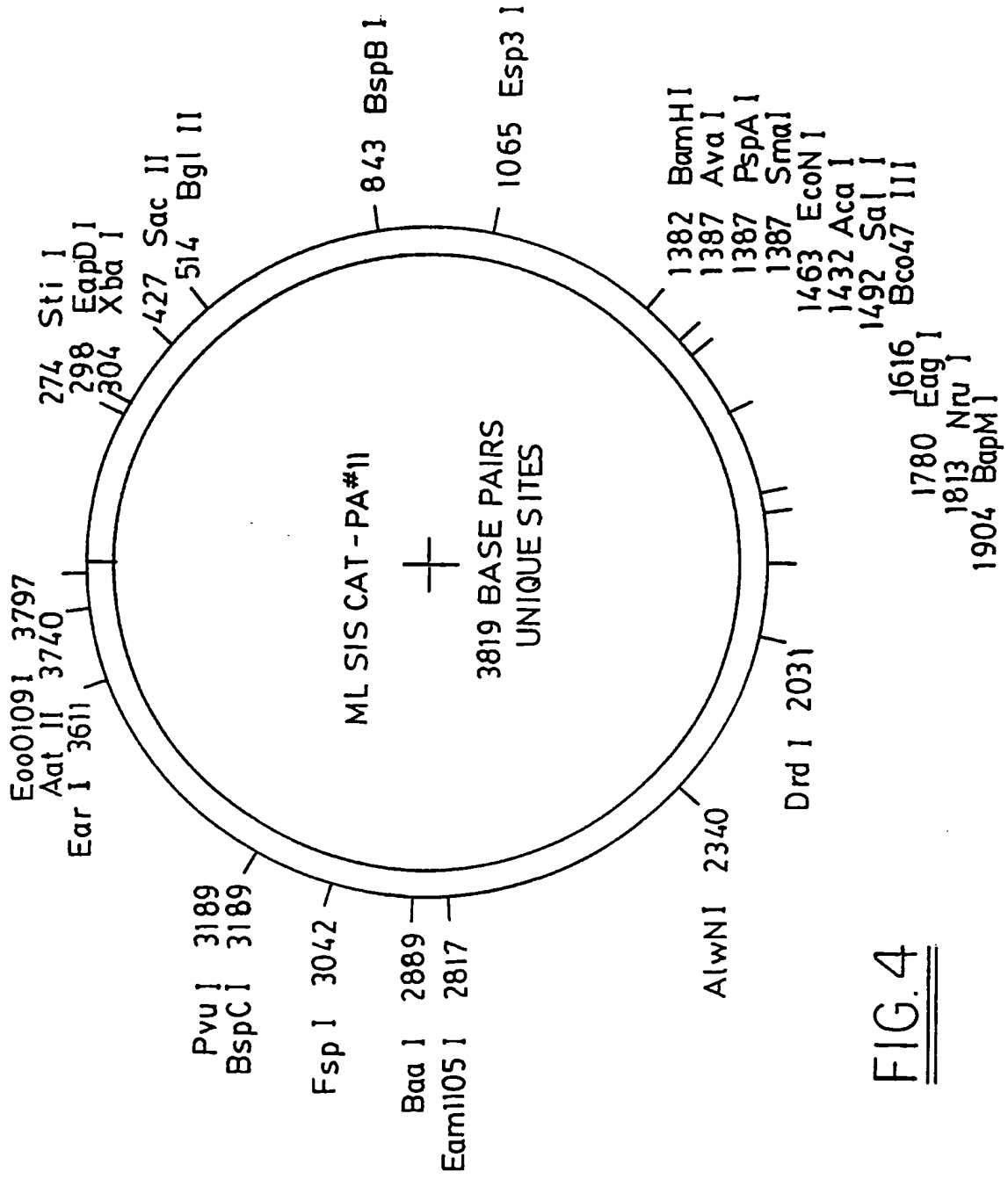


FIG. 4

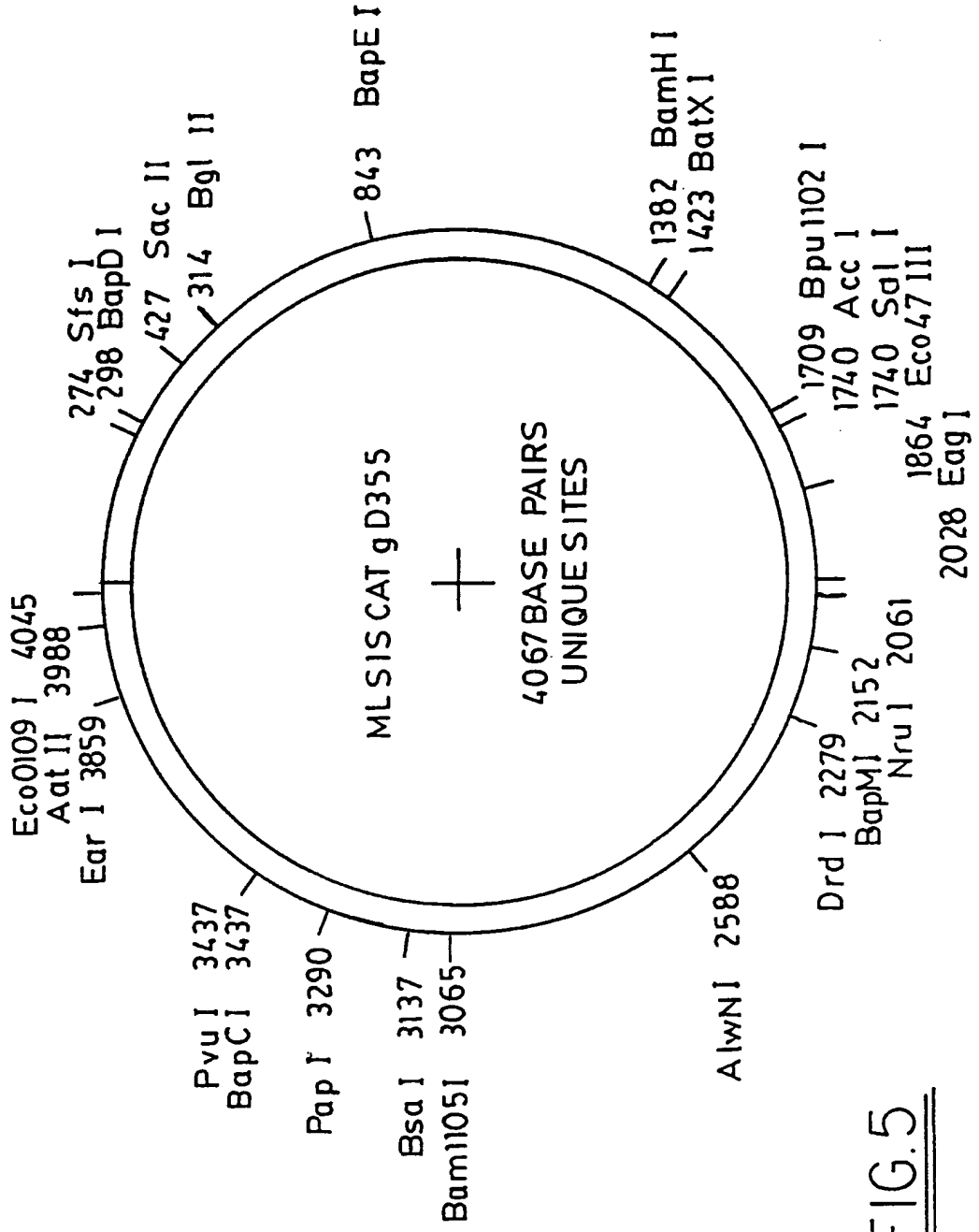


FIG.5

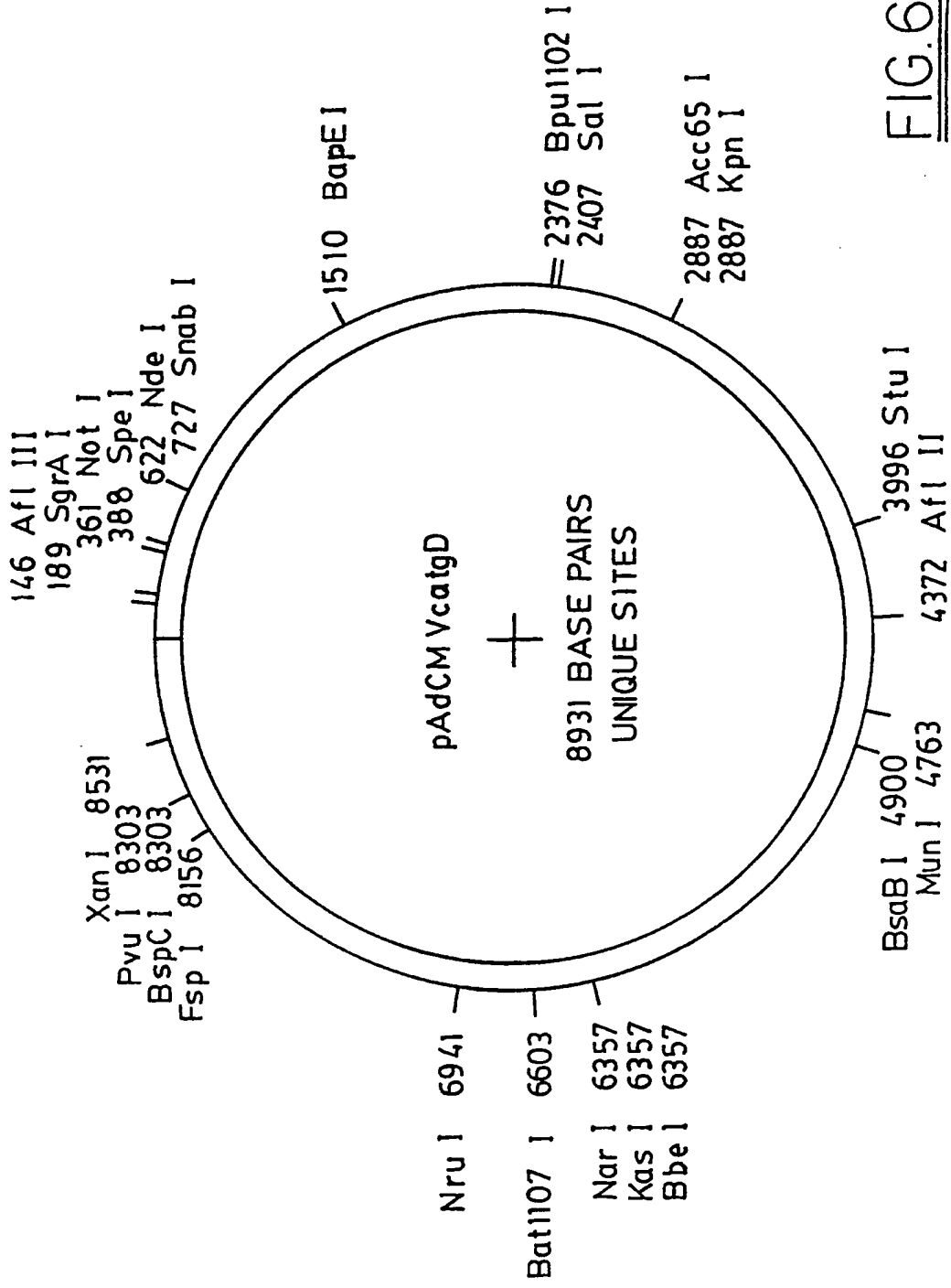
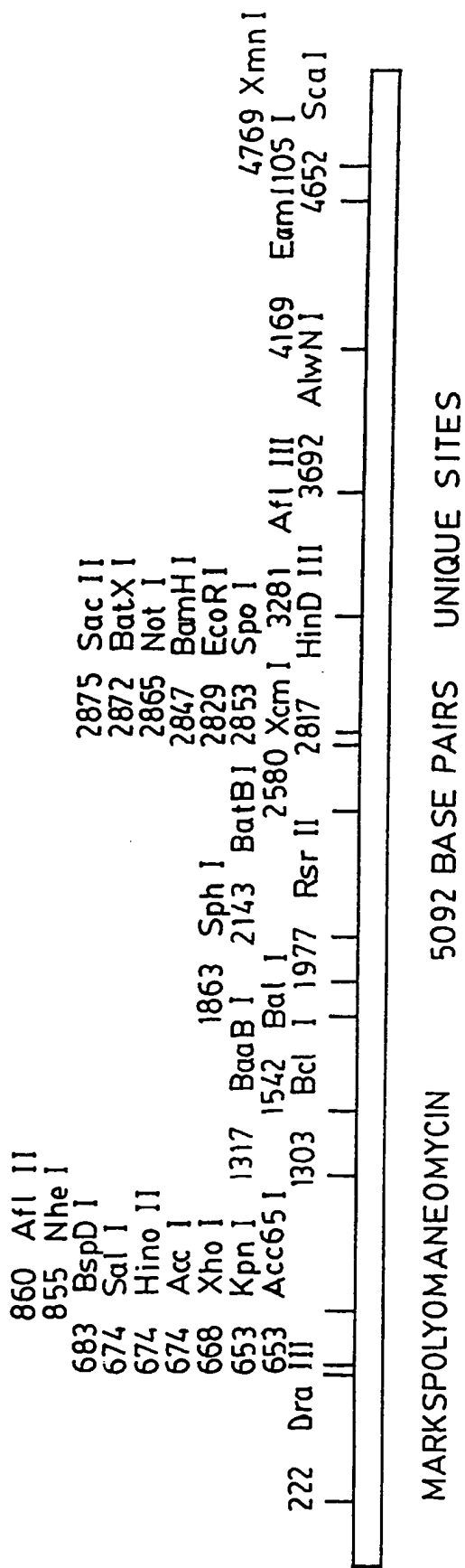


FIG. 6

FIG. 7



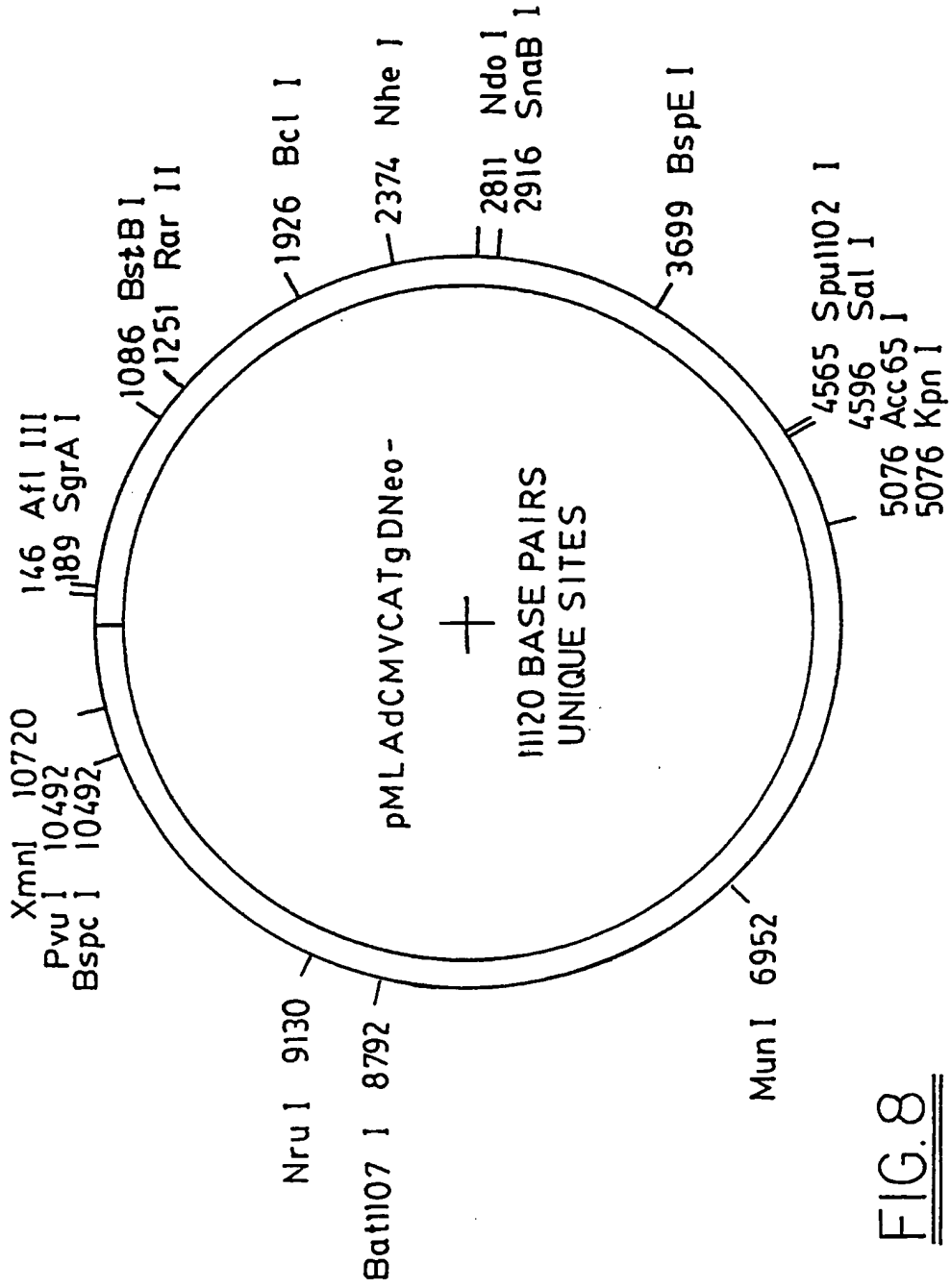


FIG. 8

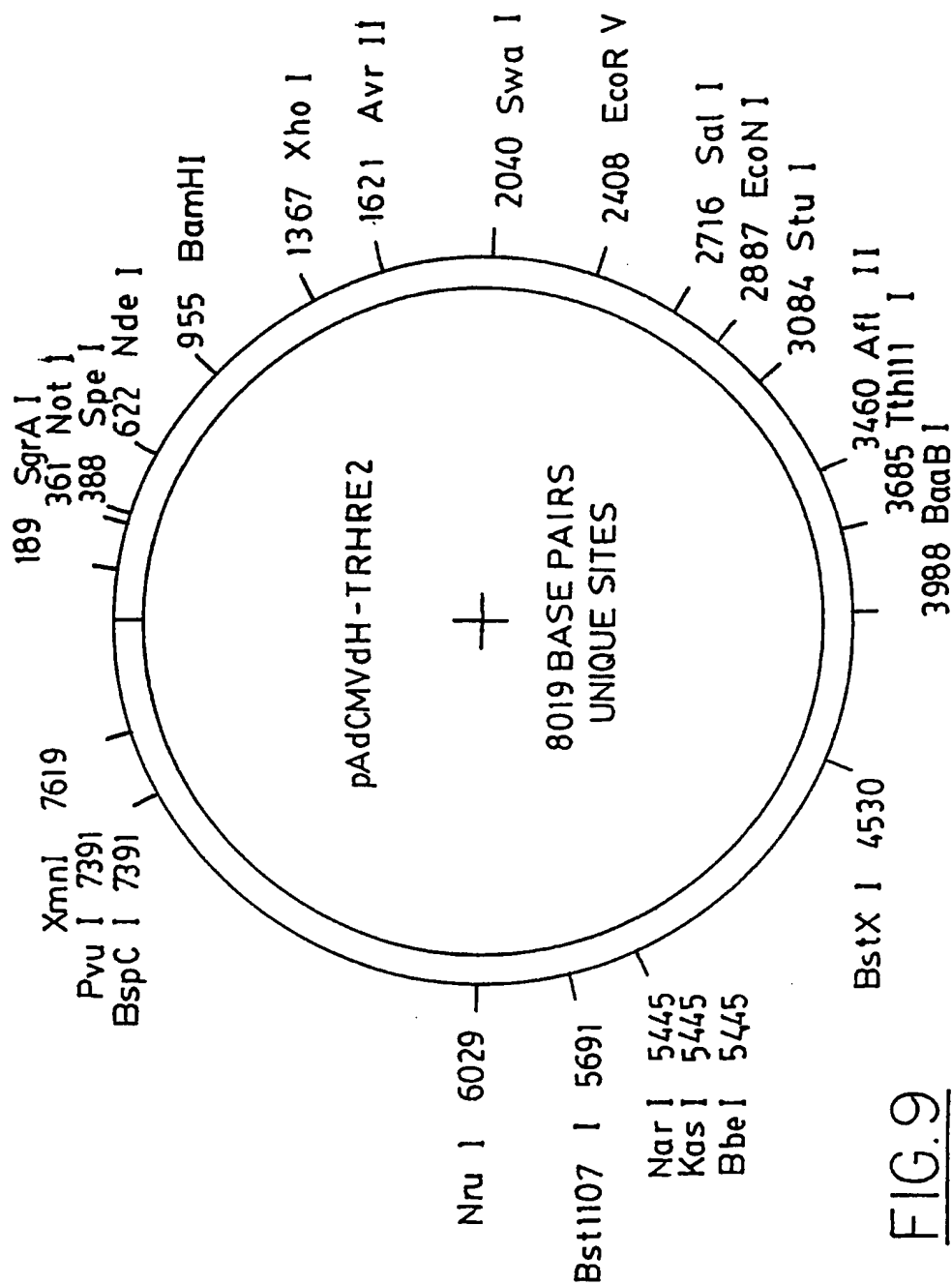


FIG. 9

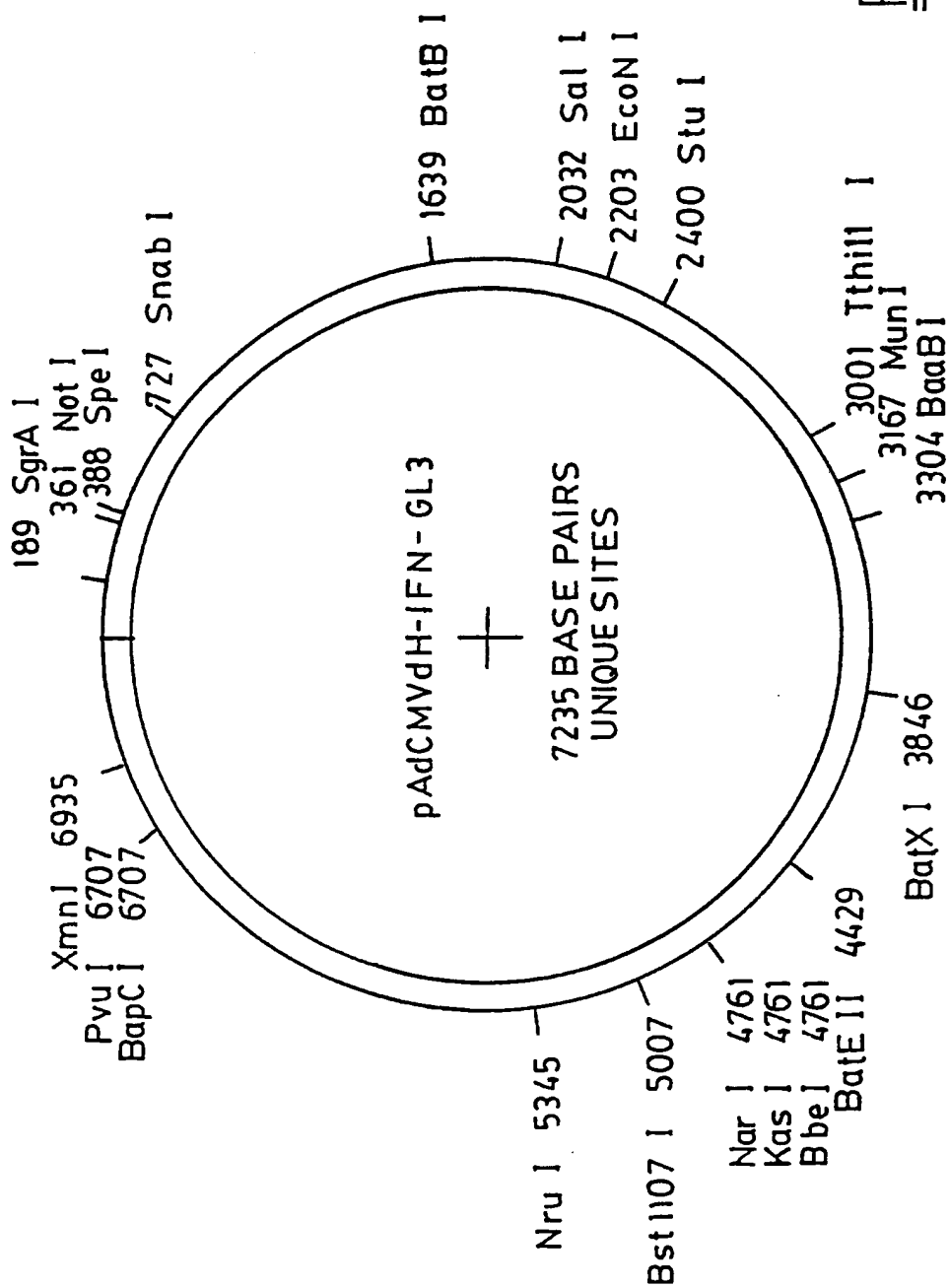


FIG.10

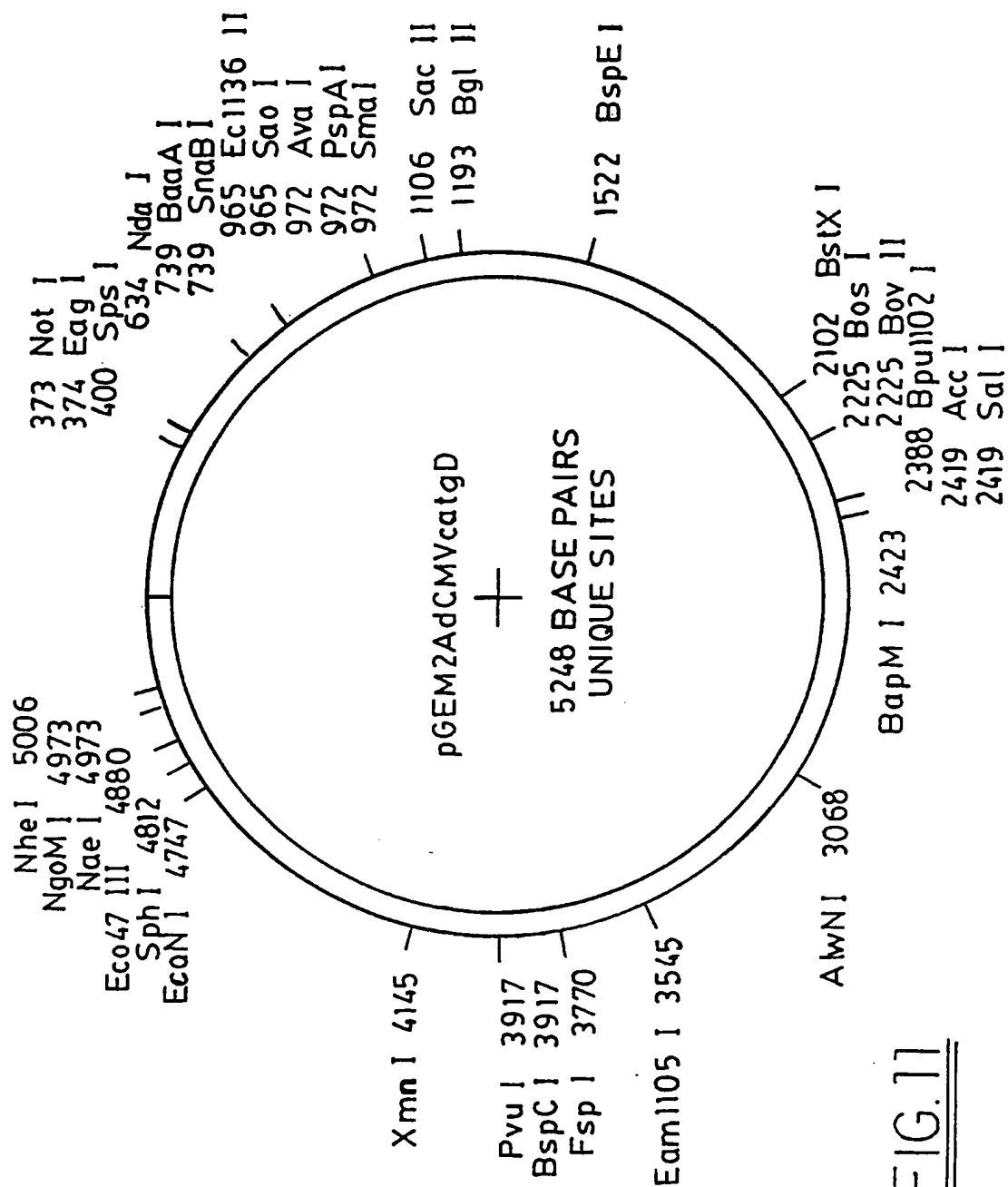


FIG. 11

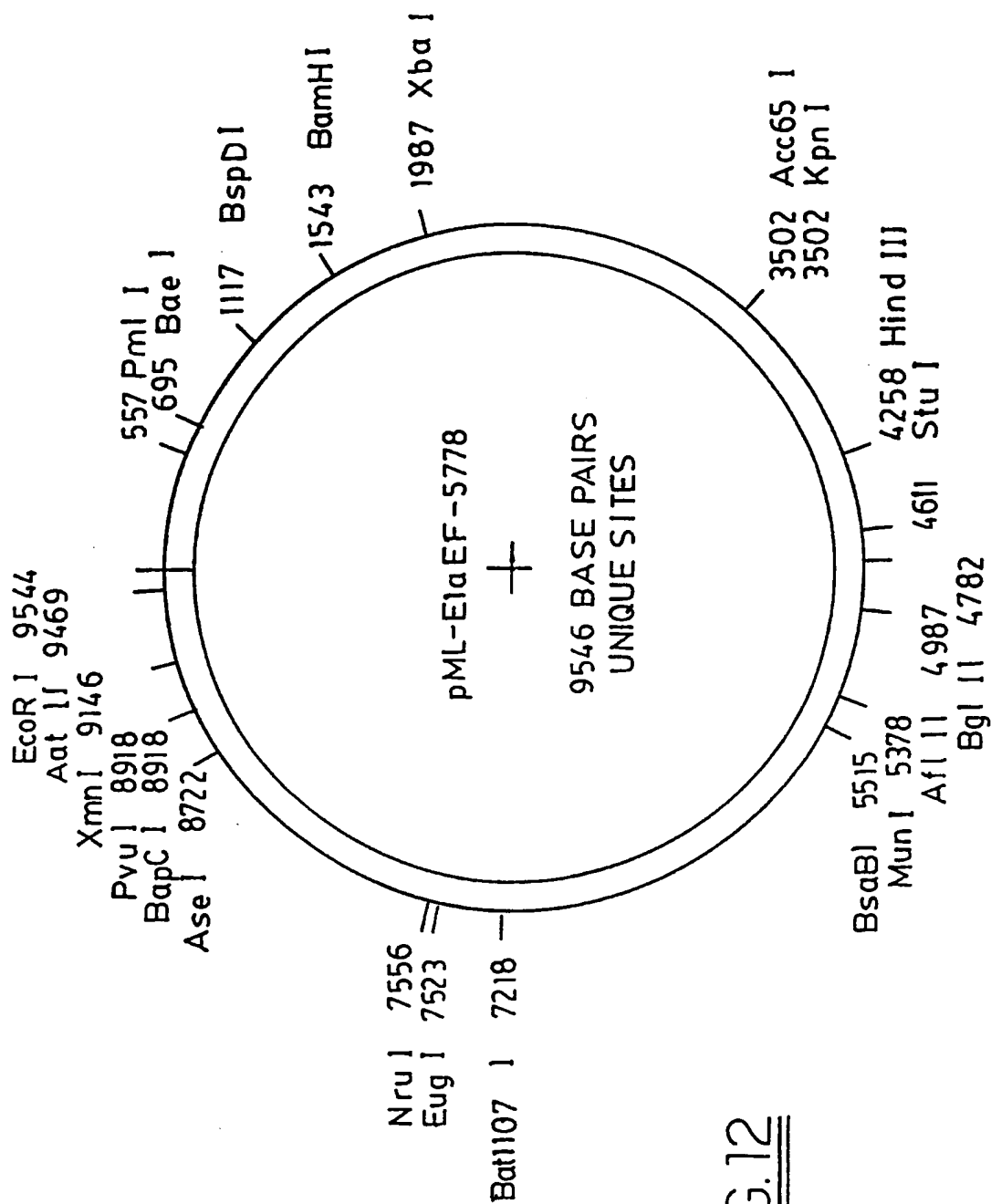


FIG.12

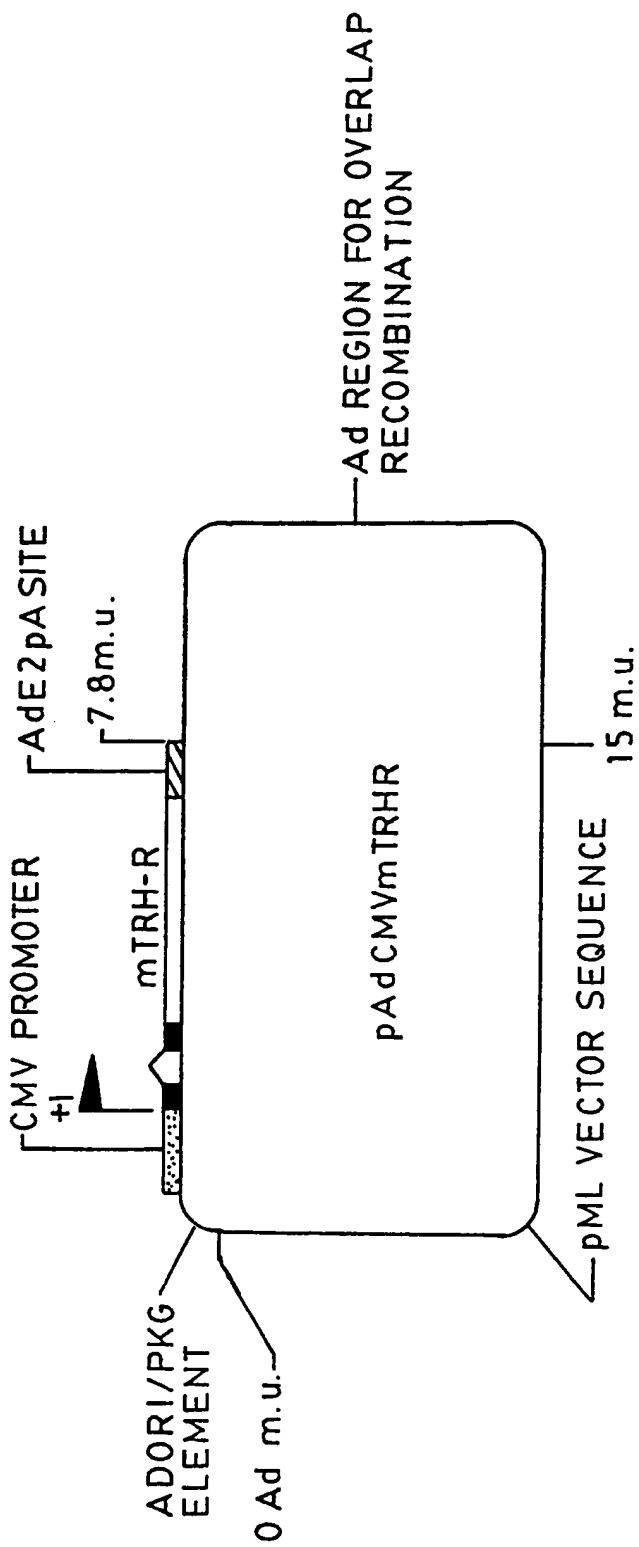


FIG. 13

INOSITOL PHOSPHATES FORMED TRH RECEPTORS (SITES/CELL)

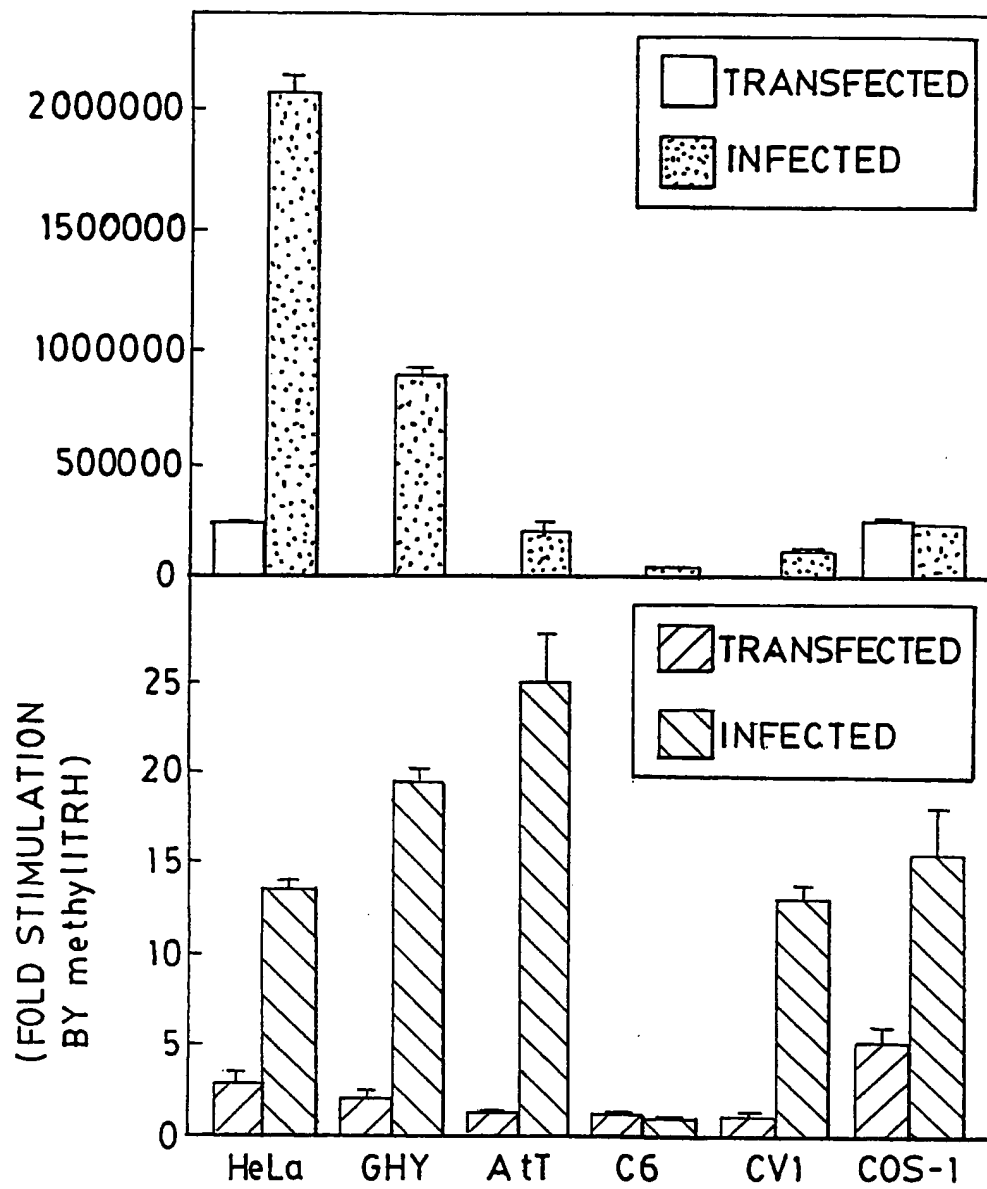


FIG.14

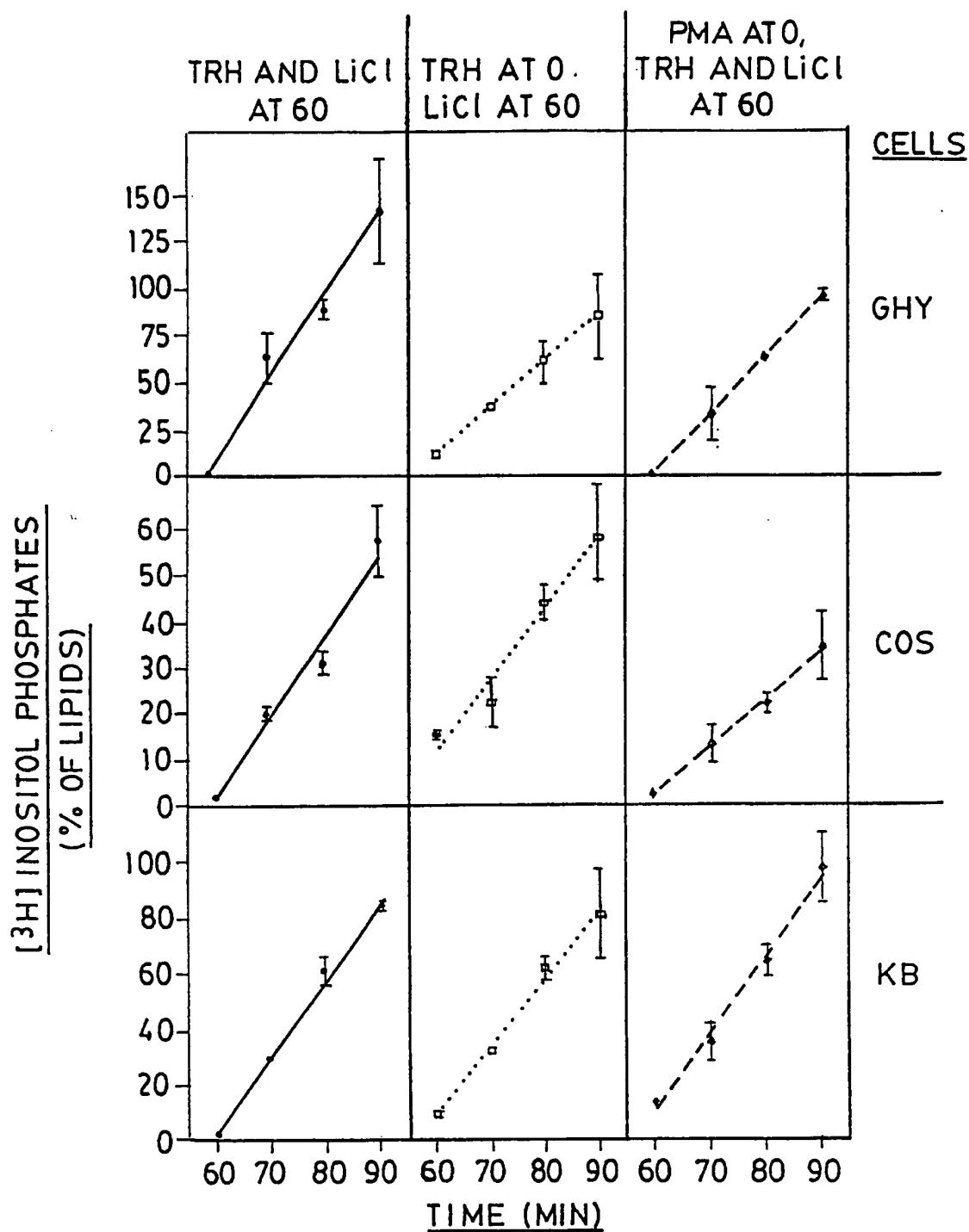


FIG.15

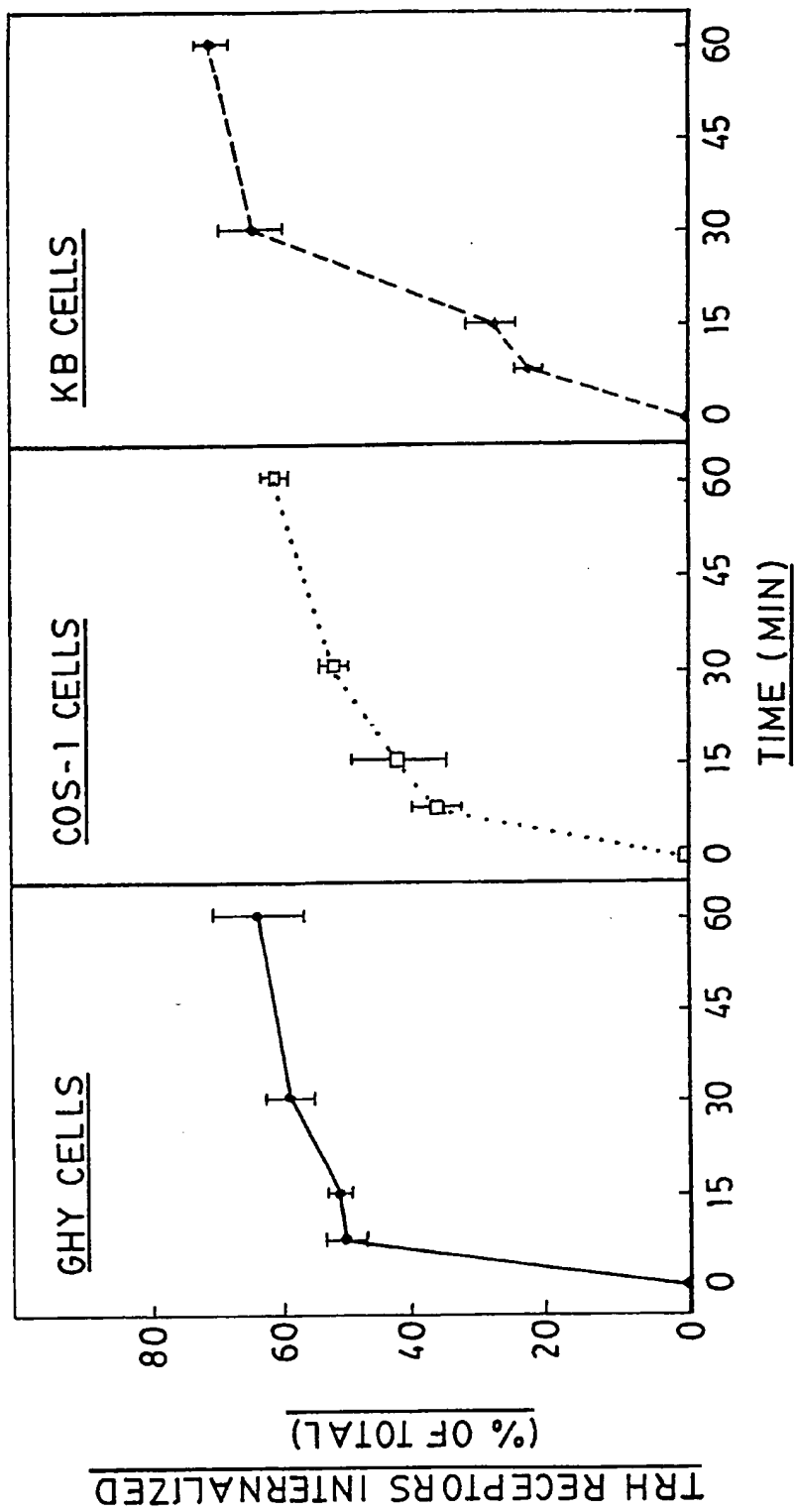


FIG.16

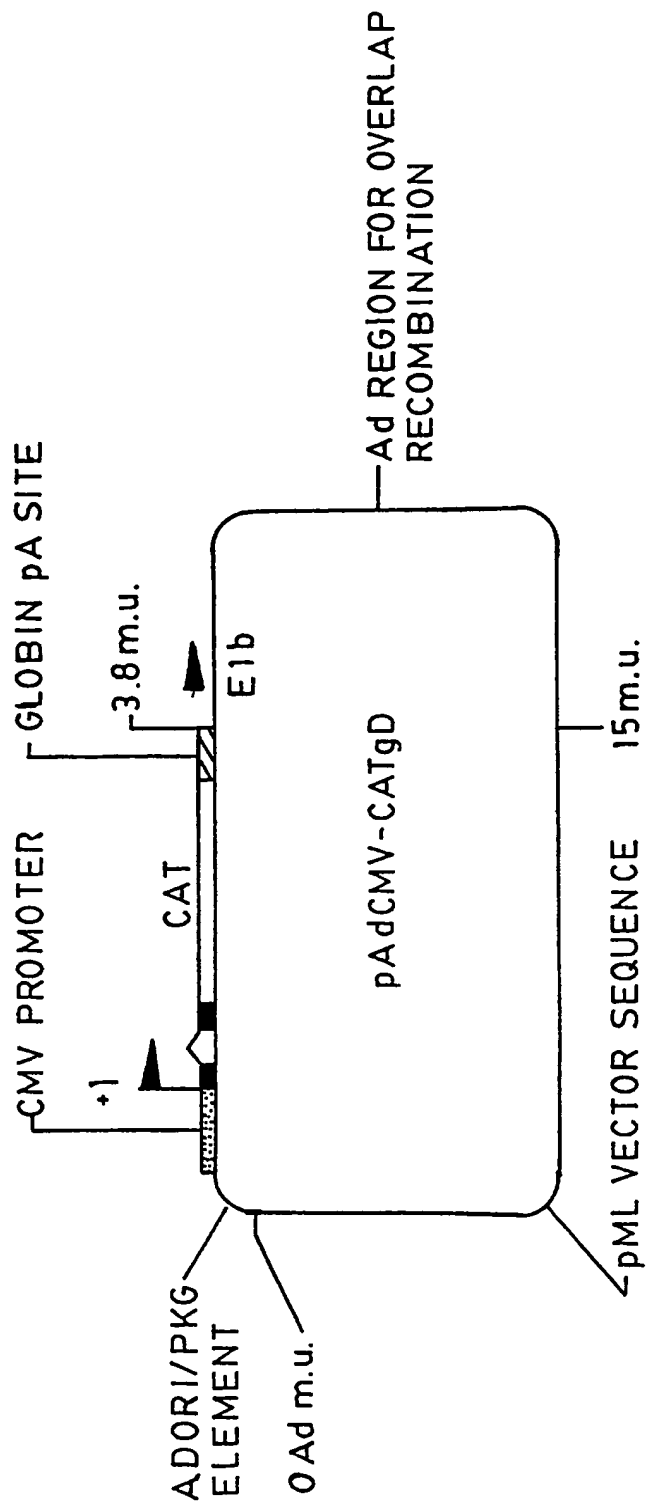


FIG.17

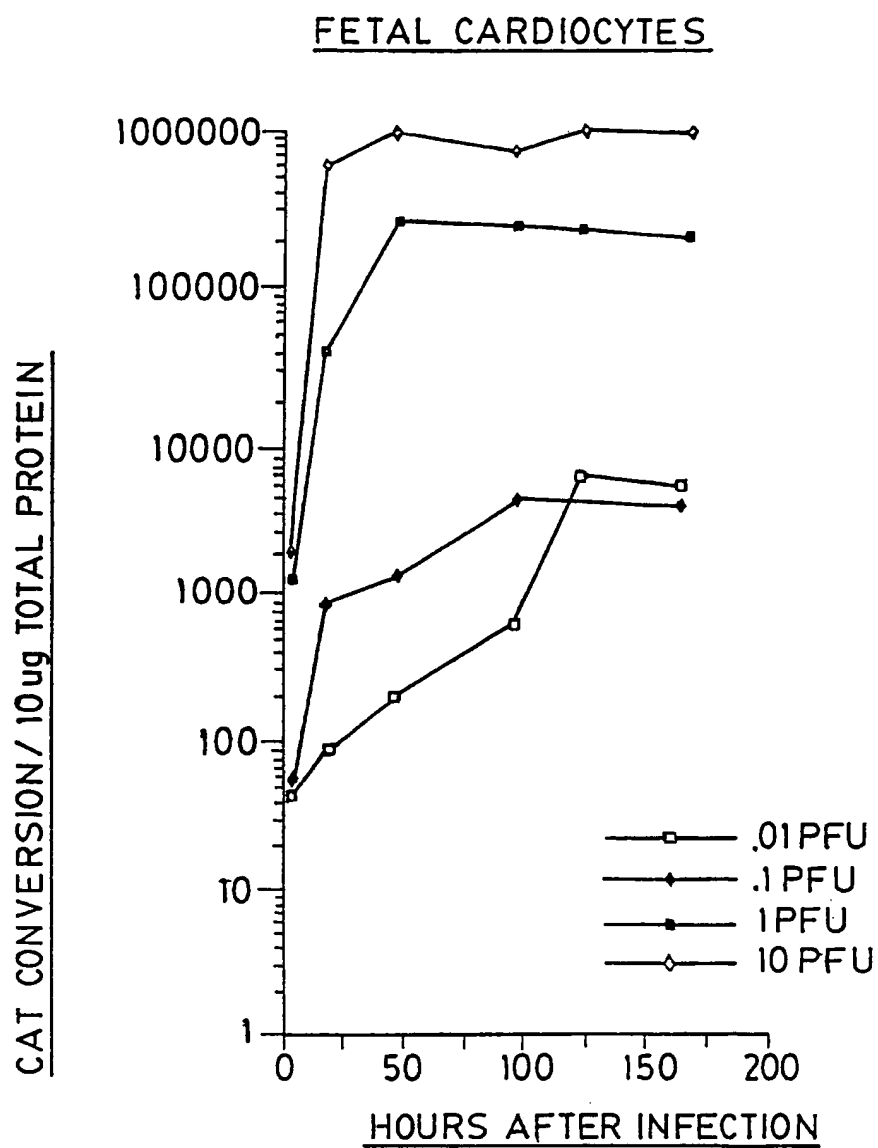


FIG. 18A



ADULT CARDIOSYTES

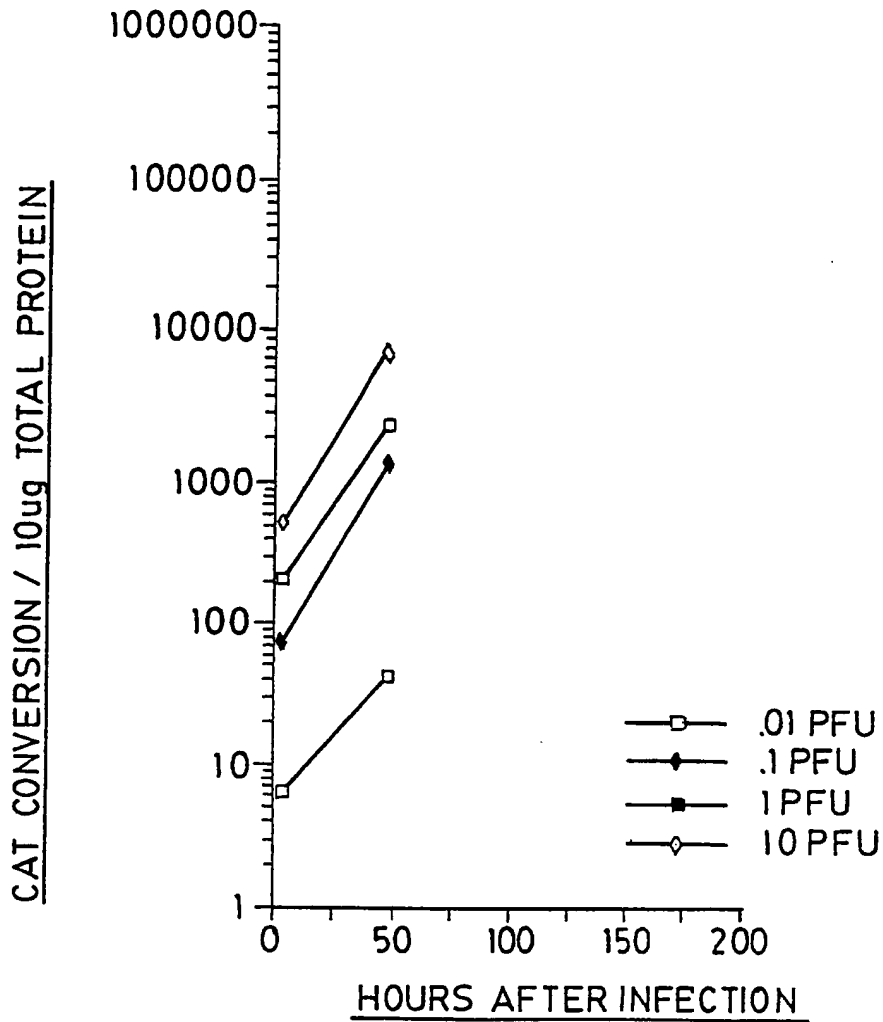
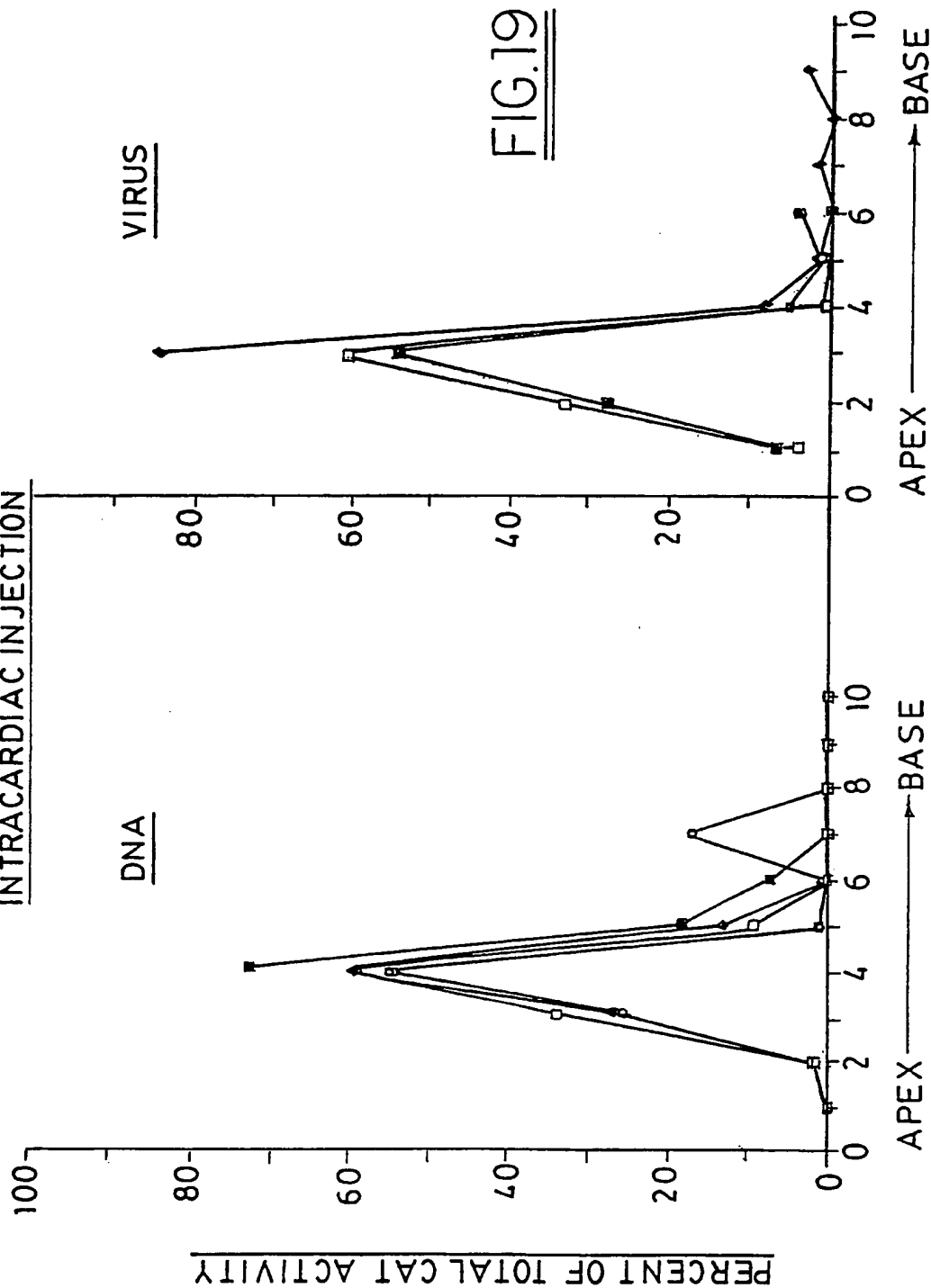


FIG.18B

DISTRIBUTION OF CAT ACTIVITY FOLLOWING A SINGLE
 INTRACARDIAC INJECTION



DOSE DEPENDENT CAT EXPRESSION IN THE
LEFT VENTRICLE

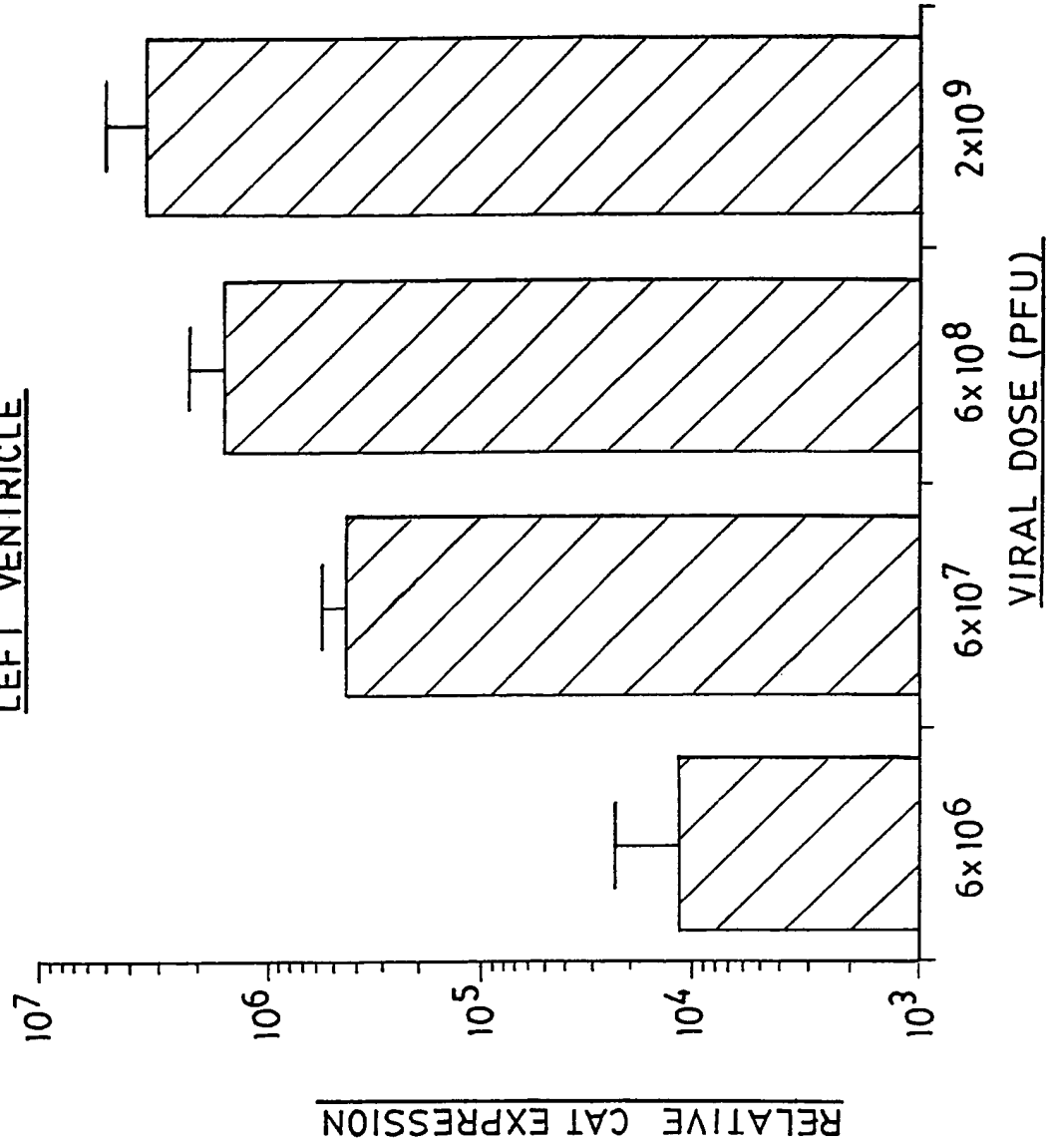


FIG 20A

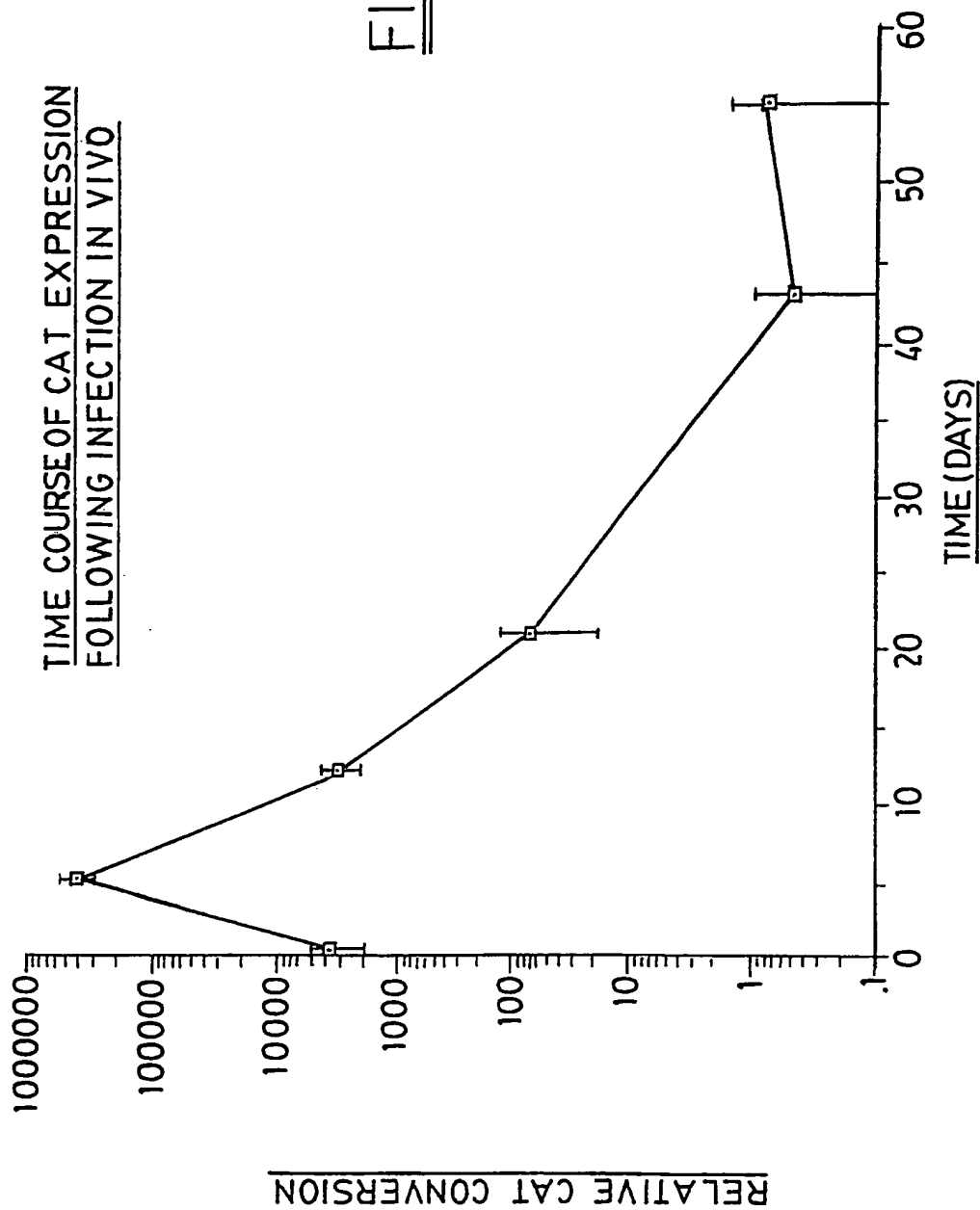


FIG. 20B



FIG. 21A



FIG. 21B

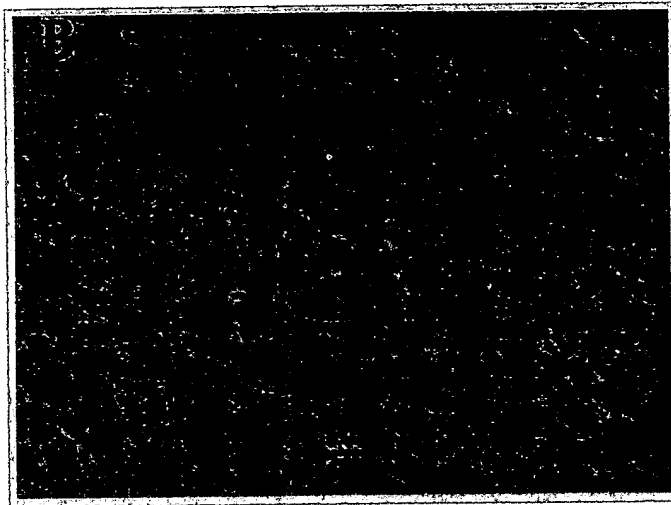


FIG. 21C

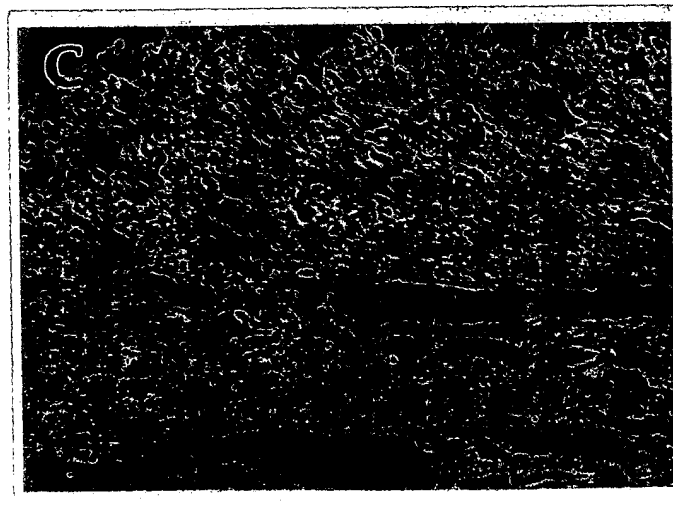




FIG. 21D



FIG. 21E

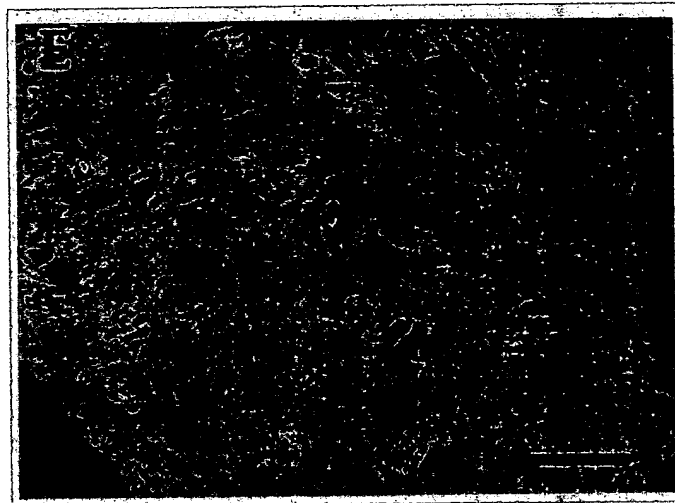


FIG. 21F

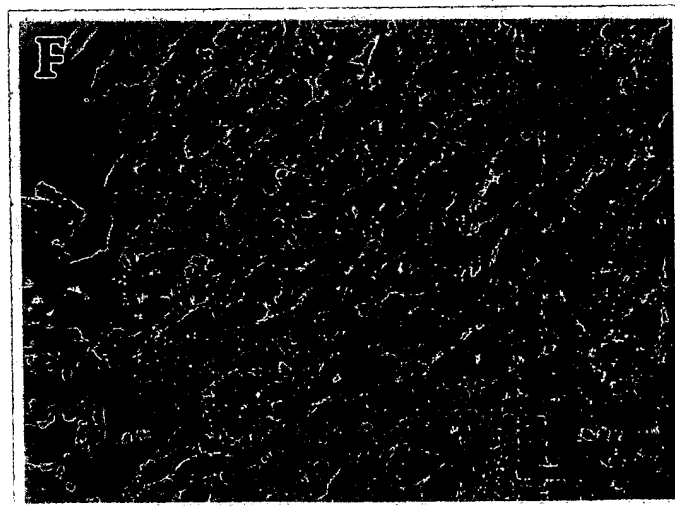




FIG. 22

TTCCATCATC	AATAATATAC	CTTATTTTGG	ATTGAAGCCA	ATATGATAAT	GAGGGGGTGG	60
AGTTTGTGAC	GTGGCGCGGG	GCGTGGAAC	GGGGCGGGTG	ACGTAGTAGT	GTGGCGGAAG	120
TGTGATGTTG	CAAGTGTTGC	GGAACACATG	TAAGCGACGG	ATGTGGCAAA	AGTGACGTTT	180
TTGGTGTGCG	CCGGTGTACA	CAGGAAGTGA	CAATTTTCGC	GCGGTTTTAG	GCGGATGTTG	240
TAGTAAATTT	GGGCGTAACC	GAGTAAGATT	TGGCCATTTT	CGCGGGAAAA	CTGAATAAGA	300
GGAAGTGAAA	TCTGAATAAT	TTTGTGTTAC	TCATAGCGCG	TAATATTTGT	CTAGGGCCTT	360
GCGGCCGCAA	GTTGACATTG	ATTATTGACT	AGTTATTAAT	AGTAATCAAT	TACGGGGTCA	420
TTAGTTCATA	GCCCATATAT	GGAGTTCGGA	GTTACATAAC	TTACGGTAAA	TGGCCCGCCT	480
GGCTGACCGC	CCAACGACCC	CCGCCCATTG	ACGTCAATAA	TGACGTATGT	TCCCATAGTA	540
ACGCGAATAG	GGACTTTCCA	TTGACGTCAA	TGGGTGGAGT	ATTTACGGTA	AACTGCCCAC	600
TTGGCAGTAC	ATCAAGTGTA	TCATATGCCA	AGTACGCCCC	CTATTGACGT	CAATGACGGT	660
AAATGGCCCC	CCTGGCATTG	TGCCCAGTAC	ATGACCTTAT	GGGACTTTCC	TACTTGGCAG	720
TACATCTACG	TATTAGTCAT	CGCTATTACC	ATGGTGATGC	GGTTTTGGCA	GTACATCAAT	780
GGGCGTGGAT	AGCGGTTTGA	CTCACGGGGA	TTTCCAAGTC	TCCACCCCAT	TGACGTCAAT	840
GGGAGTTTGT	TTTGGCACCA	AAATCAACGG	GACTTTCCAA	AATGTCGTAA	CAACTCCGCC	900
CCATTGACGC	AAATGGGCGG	TAGGCGTGTA	CGGTGGGAGG	TCTATATAAG	CAGAGCTCGC	960
CCGGGGATCC	TCTAGAATTC	GCTGTCTGCG	AGGGCCAGCT	GTTGGGGTGA	GTACTCCCTC	1020
TCAAAAGCGG	GCATGACTTC	TGCGCTAAGA	TTGTCACTTT	CCAAAAACGA	GGAGGATTTG	1080
ATATTCACCT	GGCCCGCGGT	GATGCCTTTG	AGGGTGGCCG	CGTCCATCTG	GTCAGAAAAG	1140
ACAATCTTTT	TGTTGTCAAA	AGCGCTTGAG	GTGTGGCAGG	CTTGAGATCT	GGCCATACAC	1200
TTGAGTGACA	ATGACATCCA	CTTTGCCTTT	CTCTCCACAG	GTGTCCACTC	CCAGGTCCAA	1260
CTGCAGCCCC	CAAGCTTGGG	AATTCTCTCG	GAAACGATGA	AATATACAAG	TTATATCTTG	1320
GCTTTTCAGC	TCTGCATCGT	TTTGGGTTCT	CTTGGCTGTT	ACTGCCAGGA	CCCATATGTA	1380
AAAGAAGCAG	AAAACCTTAA	GAAATATTTT	AATGCAGGTC	ATTCAGATGT	AGCGGATAAT	1440
GGAACTCTTT	TCTTAGGCAT	TTTGAAGAAT	TGGAAAGAGG	AGAGTGACAG	AAAAATAATG	1500
CAGAGCCAAA	TTGTCTCCTT	TTACTTCAAA	CTTTTTAAAA	ACTTTAAAGA	TGACCAGAGC	1560
ATCCAAAAGA	GTGTGGAGAC	CATCAAGGAA	GACATGAATG	TCAAGTTTTT	CAATAGCAAC	1620
AAAAAGAAAC	GAGATGACTT	CGAAAAGCTG	ACTAATTATT	CGGTAACCTG	CTTGAATGTC	1680
CAACGCAAAG	CAATACATGA	ACTCATCCAA	GTGATGGCTG	AACTGTCGCC	AGCAGCTAAA	1740
ACAGGGAAGC	GAAAAAGGAG	TCAGATGCTG	TTTCAAGGTC	GAAGAGCATC	CCAGTAATGG	1800
TTGTCTGCG	GATCCCTGGC	AGTGGCGCAT	AGCGATGCGC	GGCAGAACCC	CTTTGATTTT	1860
TAAACGGCGC	AGACGGCAAG	GGTGGGGGGT	AAATAATCAC	CCGAGAGTGT	ACAAATAAAA	1920
ACATTTGCCT	TTATTGAAAG	TGTCTCCTAG	TACATTATTT	TTACATGTTT	TTCAAGTGAC	1980
AAAAAGAAGT	GGCGCTCCTA	ATCTGCGCAC	TGTGGCTGCG	GGAGCTCTAG	AGTCGACGGT	2040
ATCGCCCGAC	ATCACCTGTG	TCTATGGCCA	CTGCCTTGGC	TCACAAGTAC	CACTAAACCC	2100
CCTTTCCTGC	TCTTGCCTGT	GAACAATGGT	TAATTGTTCC	CAAGAGAGCA	TCTGTCAGTT	2160
GTTGGCAAAA	TGATAGACAT	TTGAAAATCT	GTCTTCTGAC	AAATAAAAAA	CATTTATGTT	2220
CACTGCAATG	ATGTTTTAAA	TTATTTGTCT	GTGTCATAGA	AGGGTTTATG	CTAAGTTTTT	2280
AAGATACAAA	GAAGTGAGGC	TTCAGGTCTG	ACCTTGGGGA	AATAAATGAA	TTACACTTCA	2340
AATTGTGTTG	TCAGCTAAGC	AGCAGTAGCC	ACAGTCTAGC	TGAGGGTAAC	TCCAGGGTGC	2400
GCCACAATGT	GGCCTCCGAC	TGTGGTTGCT	TCATGCTAGT	GAAAAGCGTG	GCTGTGATTA	2460
AGCATAACAT	GGTATGTGGC	AACTGCGAGG	ACAGGGCCTC	TCAGATGCTG	ACCTGCTCGG	2520
ACGGCAACTG	TCACCTGCTG	AAGACCATTC	ACGTAGCCAG	CCACTCTCGC	AAGGCCTGGC	2580
CAGTGTTTGA	GCATAACATA	CTGACCCGCT	GTTCCCTGCA	TTTGGGTAAC	AGGAGGGGGG	2640
TGTTCTTACC	TTACCAATGC	AATTTGAGTC	ACACTAAGAT	ATTGCTTGAG	CCCGAGAGCA	2700
TGTCCAAGGT	GAACCTGAAC	GGGGTGTTTG	ACATGACCAT	GAAGATCTGG	AAGGTGCTGA	2760
GGTACGATGA	GACCCGCACC	AGGTGCAGAC	CCTGCGAGTG	TGGCGGTAAA	CATATTAGGA	2820
ACCAGCCTGT	GATGCTGGAT	GTGACCGAGG	AGCTGAGGCC	CGATCACTTG	GTGCTGGCCT	2880
GCACCCGCGC	TGAGTTTGGC	TCTAGCGATG	AAGATACAGA	TTGAGGTACT	GAAATGTGTG	2940



FIG. 22(continued)

GGCGTGGCTT	AAGGGTGGGA	AAGAATATAT	AAGGTGGGGG	TCTTATGTAG	TTTTGTATCT	3000
GTTTTGCAGC	AGCCGCCGCC	GCCATGAGCA	CCAACCTCGT	TGATGGAAGC	ATTGTGAGCT	3060
CATATTTGAC	AACGCGCATG	CCCCCATGGG	CCGGGGTGCG	TCAGAATGTG	ATGGGCTCCA	3120
GCATTGATGG	TCGCCCCGTC	CTGCCCCGAA	ACTCTACTAC	CTTGACCTAC	GAGACCGTGT	3180
CTGGAACGCC	GTTGGAGACT	GCAGCCTCCG	CCGCCGCTTC	AGCCGCTGCA	GCCACCGCCC	3240
GCGGGATTGT	GACTGACTTT	GCTTTCTGA	GCCCCGCTTG	AAGCAGTGCA	GCTTCCCGTT	3300
CATCCGCCCG	CGATGACAAG	TTGACGGCTC	TTTTGGCACA	ATTGGATTCT	TTGACCCGGG	3360
AACTTAATGT	CGTTTCTCAG	CAGCTGTTGG	ATCTGCGCCA	GCAGGTTTCT	GCCCTGAAGG	3420
CTTCCTCCCC	TCCCAATGCG	GTTTAAAACA	TAAATAAAAA	ACCAGACTCT	GTTTGGATTT	3480
GGATCAAGCA	AGTGTCTTGC	TGTCTTTATT	TAGGGGTTTT	GCGCGCGCGG	TAGGCCCGGG	3540
ACCAGCGGTC	TCGGTCGTTG	AGGGTCCTGT	GTATTTTTTC	CAGGACGTGG	TAAAGGTGAC	3600
TCTGGATGTT	CAGATACATG	GGCATAAGCC	CGTCTCTGGG	GTGGAGGTAG	CACCACTGCA	3660
GAGCTTCATG	CTGCGGGGTG	GTGTTGTAGA	TGATCCAGTC	GTAGCAGGAG	CGCTGGGCGT	3720
GGTGCCTAAA	AATGTCTTTC	AGTAGCAAGC	TGATTGCCAG	GGGCAGGCCC	TTGGTGTAAG	3780
TGTTTACAAA	GCGGTAAAGC	TGGGATGGGT	GCATACGTGG	GGATATGAGA	TGCATCTTGG	3840
ACTGTATTTT	TAGGTTGGCT	ATGTTCCAG	CCATATCCCT	CCGGGGATTTC	ATGTTGTGCA	3900
GAACCACCAG	CACAGTGTAT	CCGGTGCAT	TGGGAAATTT	GTCATGTAGC	TTAGAAGGAA	3960
ATGCGTGGAA	GAACCTGGAG	ACGCCCTTGT	GACCTCCAAG	ATTTTCCATG	CATTCTGTTA	4020
TAATGATGGC	AATGGGCCCA	CGGGCGGCGG	CCTGGGCGAA	GATATTTCTG	GGATCACTAA	4080
CGTCATAGTT	GTGTTCCAGG	ATGAGATCGT	CATAGGCCAT	TTTTACAAAG	CGCGGGCGGA	4140
GGGTGCCAGA	CTGCGGTATA	ATGGTTCCAT	CCGGCCCAGG	GGCGTAGTTA	CCCTCACAGA	4200
TTTGCAATTC	CCACGCTTTG	AGTTCAGATG	GGGGGATCAT	GTCTACCTGC	GGGGCGATGA	4260
AGAAAACGGT	TTCCGGGGTA	GGGGAGATCA	GCTGGGAAGA	AAGCAGGTTT	CTGAGCAGCT	4320
GCGACTTACC	GCAGCCGGTG	GGCCCGTAAA	TCACACCTAT	TACCGGGTGC	AACTGGTAGT	4380
TAAGAGAGCT	GCAGCTGCCG	TCATCCCTGA	GCAGGGGGGC	CACTTCGTTA	AGCATGTCCC	4440
TGACTCGCAT	GTTTTCCCTG	ACCAAATCCG	CCAGAAGGCG	CTCGCCGCCC	AGCGATAGCA	4500
GTTCTTGCAA	GGAAGCAAAG	TTTTTCAACG	GTTTGAGACC	GTCCGCCGTA	GGCATGCTTT	4560
TGAGCGTTTG	ACCAAGCAGT	TCCAGGCGGT	CCCACAGCTC	GGTCACCTGC	TCTACGGCAT	4620
CTCGATCCAG	CATATCTCCT	CGTTTCGCGG	GTTGGGGCGG	CTTTCGCTGT	ACGGCAGTAG	4680
TCGGTGCTCG	TCCAGACGGG	CCAGGGTCAT	GTCTTTCCAC	GGGCGCAGGG	TCCTCGTCAG	4740
CGTAGTCTGG	GTCACGGTGA	AGGGGTGCGC	TCCGGGCTGC	GCGCTGGCCA	GGGTGCGCTT	4800
GAGGCTGGTC	CTGCTGGTGC	TGAAGCGCTG	CCGGTCTTCG	CCCTGCGCGT	CGGCCAGGTA	4860
GCATTTGACC	ATGGTGTCAT	AGTCCAGCCC	CTCCGCGGCG	TGGCCCTTGG	CGCGCAGCTT	4920
GCCCTTGAGG	GAGGCGCCGC	ACGAGGGGCA	GTGCAGACTT	TTGAGGGCGT	AGAGCTTGGG	4980
CGCGAGAAAT	ACCGATTCCG	GGGAGTAGGC	ATCCGCGCCG	CAGGCCCCGC	AGACGGTCTC	5040
GCATTCCACG	AGCCAGGTGA	GCTCTGGCCG	TTCGGGGTCA	AAAACCAGGT	TTCCCCCATG	5100
CTTTTTGATG	CGTTTCTTAC	CTCTGGTTTC	CATGAGCCGG	TGTCCACGCT	CGGTGACGAA	5160
AAGGCTGTCC	GTGTCCCCGT	ATACAGACTT	GAGAGGTCGA	GCGATGCCCT	TGAGAGCCTT	5220
CAACCCAGTC	AGCTCCTTCC	GGTGGGCGCG	GGGCATGACT	ATCGTCGCCG	CACTTATGAC	5280
TGTCTTCTTT	ATCATGCAAC	TCGTAGGACA	GGTGCCGGCA	GCGCTCTGGG	TCATTTTCGG	5340
CGAGGACCGC	TTTCGCTGGA	GCGCGACGAT	GATCGGCCTG	TCGCTTGCGG	TATTCGGAAT	5400
CTTGACAGCC	CTCGCTCAAG	CCTTCGTCAC	TGGTCCC GCC	ACCAAACGTT	TCGGCGAGAA	5460
GCAGGCCATT	ATCGCCGGCA	TGGCGGCCGA	CGCGCTGGGC	TACGTCTTGC	TGGCGTTCGC	5520
GACGCGAGGC	TGGATGGCCT	TCCCCATTAT	GATTCTTCTC	GCTTCCGGCG	GCATCGGGAT	5580
GCCCCGCTTG	CAGGCCATGC	TGTCCAGGCA	GGTAGATGAC	GACCATCAGG	GACAGCTTCA	5640
AGGATCGCTC	GCGGGTAAAA	AGGCCGCGTT	GCTGGCGTTT	TTCCATAGGC	TCCGCCCCCC	5700
TGACGAGCAT	CACAAAAATC	GACGCTCAAG	TCAGAGGTGG	CGAAACCCGA	CAGGACTATA	5760
AAGATAACAG	GCGTTTCCCC	CTGGAAGCTC	CCTCGTGCGC	TCTCCTGTTT	CGACCCTGCC	5820
GCTTACCGGA	TACCTGTCCG	CCTTCTCTCC	TTCGGGAAGC	GTGGCGCTTT	CTCAATGCTC	5880



FIG. 22

(continued)

ACGCTGTAGG	TATCTCAGTT	CGGTGTAGGT	CGTTCGCTCC	AAGCTGGGCT	GTGTGCACGA	5940
ACCCCCCGTT	CAGCCCGACC	GCTGCGCCTT	ATCCGGTAAC	TATCGTCTTG	AGTCCAACCC	6000
GGTAAGACAC	GACTTATCGC	CACTGGCAGC	AGCCACTGGT	AACAGGATTA	GCAGAGCGAG	6060
GTATGTAGGC	GGTGCTACAG	AGTTCTTGAA	GTGGTGGCCT	AACTACGGCT	ACACTAGAAG	6120
GACAGTATTT	GGTATCTGCG	CTCTGCTGAA	GCCAGTTACC	TTCGGAAAAA	GAGTTGGTAG	6180
CTCTTGATCC	GGCAAAACAA	CCACCGCTGG	TAGCGGTGGT	TTTTTTGTTT	GCAAGCAGCA	6240
GATTACGCGC	AGAAAAAAAG	GATCTCAAGA	AGATCCTTTG	ATCTTTTCTA	CGGGGTCTGA	6300
CGCTCAGTGG	AACGAAAAC	CACGTTAAGG	GATTTTGGTC	ATGAGATTAT	CAAAAAGGAT	6360
CTTCACCTAG	ATCCTTTTAA	ATTAATAATG	AAGTTTAA	TCAATCTAAA	GTATATATGA	6420
GTAAACTTGG	TCTGACAGTT	ACCAATGCTT	AATCAGTGAG	GCACCTATCT	CAGCGATCTG	6480
TCTATTTTCGT	TCATCCATAG	TTGCCTGACT	CCCCGTCGTG	TAGATAACTA	CGATACGGGA	6540
GGGCTTACCA	TCTGGCCCCA	GTGCTGCAAT	GATACCGCGA	GACCCACGCT	CACCGGCTCC	6600
AGATTTATCA	GCAATAAACC	AGCCAGCCGG	AAGGGCCGAG	CGCAGAAGTG	GTCTGCAAC	6660
TTTATCCGCC	TCCATCCAGT	CTATTAATTG	TTGCCGGGAA	GCTAGAGTAA	GTAGTTCGCC	6720
AGTTAATAGT	TTGCGCAACG	TTGTTGCCAT	TGCTGCAGGC	ATCGTGGTGT	CACGCTCGTC	6780
GTTTGGTATG	GCTTCATTCA	GCTCCGGTTC	CCAACGATCA	AGGCGAGTTA	CATGATCCCC	6840
CATGTTGTGC	AAAAAAGCGG	TTAGCTCCTT	CGGTCCTCCG	ATCGTTGTCA	GAAGTAAGTT	6900
GGCCGCAGTG	TTATCACTCA	TGGTTATGGC	AGCACTGCAT	AATTCTCTTA	CTGTCATGCC	6960
ATCCGTAAGA	TGCTTTTCTG	TGACTGGTGA	GTACTION	AAGTCATTCT	GAGAATAGTG	7020
TATGCGGCGA	CCGAGTTGCT	CTTGCCCGGC	GTCAACACGG	GATAATACCG	CGCCACATAG	7080
CAGAACTTTA	AAAGTGCTCA	TCATTGGAAA	ACGTTCTTCG	GGGCGAAAAC	TCTCAAGGAT	7140
CTTACCGCTG	TTGAGATCCA	GTTTCGATGTA	ACCACTCGT	GCACCCAAC	GATCTTCAGC	7200
ATCTTTTACT	TTCAACAGCG	TTTCTGGGTG	AGCAAAAACA	GGAAGGCAAA	ATGCCGCAAA	7260
AAAGGGAATA	AGGGCGACAC	GGAAATGTTG	AATACTCATA	CTCTTCCTTT	TTCAATATTA	7320
TTGAAGCATT	TATCAGGGTT	ATTGTCTCAT	GAGCGGATAC	ATATTTGAAT	GTATTTAGAA	7380
AAATAAACAA	ATAGGGGTTC	CGCGCACATT	TCCCCGAAAA	GTGCCACCTG	ACGTCTAAGA	7440
AACCATTATT	ATCATGACAT	TAACCTATAA	AAATAGGCGT	ATCACGAGGC	CCTTTCGTCT	7500
TCAAGAA						7507